



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,289	12/21/2001	Gang Lu	CIS01-21(4671)	9755

7590 03/14/2005

Barry W. Chapin, Esq.
CHAPIN & HUANG, L.L.C.
Westborough Office Park
1700 West Park Drive
Westborough, MA 01581

EXAMINER

KOROBOV, VITALI A

ART UNIT	PAPER NUMBER
----------	--------------

2155

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/034,289	Applicant(s) LU ET AL.	
	Examiner Vitali Korobov	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/21/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1- 25 presented for examination.

Claim Objections

Claim 11 is objected to because of the following informalities: claim 11 refers to itself. Appropriate correction is required. For the purposes of instant examination, the examiner assumed that claim 11 is a dependent claim of claim 10.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 5, 7 – 16 and 18 - 25 are rejected under 35 U.S.C. 102(e) as being unpatentable over US Patent Application Publication No. 2002/0112036 A1 by Bohannon et al., (hereinafter Bohannon).

With respect to claim 1, Bohannon teaches a method for responding to a client request, the method comprising the steps of: synchronizing a plurality of servers (§0085, lines 1 – 5, Internet Site Selector acting as a Master Server); receiving a client request from the client to access a server of the plurality of servers (§0091, lines 1 – 5); generating a transmit identifier associated with the client request, the transmit identifier identifying an event upon the occurrence of which the plurality of synchronized servers each transmit a response to the client (§0092, lines 1 – 5); and forwarding the client request and the transmit identifier to each of the plurality of synchronized servers (§0091, lines 1 – 5).

With respect to claim 2, Bohannon teaches the method of claim 1 wherein the step of synchronizing comprises the steps of: synchronizing a clock mechanism in each of the plurality of servers (§0132, lines 1 – 4).

With respect to claim 3, Bohannon teaches the method of claim 1 wherein the step of generating the transmit identifier comprises the steps of: obtaining a timestamp associated with the client request (§0133, lines 1 – 3), adding a predetermined delay to the timestamp to produce the transmit identifier; and associating the transmit identifier with the client request (§0138, lines 11 – 15 – delays by configurable (i.e. predetermined) factor of time).

With respect to claim 4, Bohannon teaches the method of claim 3 wherein the step of associating the transmit identifier comprises the step of: combining the transmit identifier into the client request (Table 2, page 7 – response header).

With respect to claim 5, Bohannon teaches the method of claim 3 wherein the step of obtaining the timestamp is performed upon receipt of the client request (§0133, lines 1 – 3).

With respect to claim 7, Bohannon teaches the method of claim 3 wherein the transmit identifier identifies the event indicating a future time within each of the plurality of servers at which each of the plurality of servers responds to the client request (§0133, lines 7 – 11); and wherein the future time is related to a predetermined delay associated with at least one of the pluralities of servers (§0132, lines 4 – 9).

With respect to claim 8, Bohannon teaches the method of claim 7 wherein the predetermined delay is greater than a maximum transmission delay for transmission of

the client request to one of the plurality of servers from a master server. (§0132, lines 4 – 9).

With respect to claim 9, Bohannon teaches the method of claim 7 wherein the predetermined delay is less than or equal to a maximum transmission delay for transmission of the client request to one of the plurality of servers from a master server. (§0138, lines 11 – 15).

With respect to claim 10, Bohannon teaches a method for responding to a client request, the method comprising the steps of: receiving a client request associated with a client and receiving a transmit identifier identifying an event; generating a response to the client request; and transmitting the response to the client upon an occurrence of the event identified by the transmit identifier (§0092, lines 1 – 5).

With respect to claim 11, Bohannon teaches the method of claim 10 further including the step of: accepting a time synchronization signal, and synchronizing a clock based on the synchronization signal (§0092, lines 1 – 5).

With respect to claim 12, Bohannon teaches a master server for handling content requests comprising: a memory; a communications interface; a processor; and an interconnection mechanism coupling the memory, the processor and the communications interface (§0058, lines 1 – 6, §0059, lines 1 – 6); wherein the memory is encoded with a request handler application that when performed on the processor, produces a request handler process that causes the master server to provide a client request and transmit identifier in response to a client request such that the processor is

Art Unit: 2155

configured to: synchronize a plurality of servers (§0091, lines 1 – 5); receive a client request from the client to access a server of the plurality of servers (§0090, lines 1 – 4); generate a transmit identifier associated with the client request (§0091, line 3), the transmit identifier identifying an event upon the occurrence of which the plurality of synchronized servers each transmit a response to the client (§0092, lines 1 – 5); and forward the client request and the transmit identifier to each of the plurality of synchronized servers (§0091, lines 1 – 5).

With respect to claim 13, Bohannon teaches the master server of claim 12 wherein, to synchronize a plurality of servers, the master server is configured to: synchronize a clock mechanism in each of the plurality of servers (§0132, lines 4 – 9).

With respect to claim 14, Bohannon teaches the master server of claim 12 wherein, to generate the transmit identifier, the master server is configured to: obtain a timestamp associated with the client request, add a predetermined delay to the timestamp to produce the transmit identifier; and associate the transmit identifier with the client request (§0040, lines 5 – 11, and page 7, Table 2, response header).

With respect to claim 15, Bohannon teaches the master server of claim 14 wherein, to associate the transmit identifier, the master server is configured to: combine the transmit identifier into the client request (page 7, Table 2, response header).

Claim 16 is rejected in view of the above rejection of claim 5. Claim 16 is essentially the same as claim 5, except that it sets forth the invention as an apparatus rather than a method, as does claim 5.

Claim 18 is rejected in view of the above rejection of claim 7. Claim 18 is essentially the same as claim 7, except that it sets forth the invention as an apparatus rather than a method, as does claim 7.

With respect to claim 19, Bohannon teaches the master server of claim 14 wherein the master server is configured such that the predetermined delay is greater than a maximum transmission delay for transmission of the client request to one of the plurality of servers from a master server (§0132, lines 4 – 9).

With respect to claim 20, Bohannon teaches the master server of claim 14 wherein the master server is configured such that the predetermined delay is less than or equal to a maximum transmission delay for transmission of the client request to one of the plurality of servers from a master server (§0132, lines 4 – 9).

With respect to claim 21, Bohannon teaches a slave server for handling content requests comprising: a memory; a communications interface, a processor; and an interconnection mechanism coupling the memory, the processor and the communications interface (§0058, lines 1 – 6, §0059, lines 1 – 6); wherein the memory is encoded with a request agent application (§0058, lines 1 – Internet appliance) that when performed on the processor, produces a request agent process that causes the slave server to provide content to a client, in response to a client request and a transmit identifier, such that the processor is configured to: receive a client request associated with a client and receiving a transmit identifier identifying an event (§0092, lines 1 – 5); generate a response to the client request; and transmit the response to the client upon an occurrence of the event identified by the transmit identifier (§0092, lines 1 – 5).

With respect to claim 22, Bohannon teaches a slave server wherein, the slave server is further configured to: accept a time synchronization signal; and synchronize a clock based on the synchronization signal (§0128, lines 5 – 8).

With respect to claim 23, Bohannon teaches a system for identifying a server that provides the fastest response to a client request comprising: a master server, which is configured to (i) receive a client request from the client to access a server of a plurality of slave servers (§0090, lines 1 – 4), (ii) generate a transmit identifier associated with the client request, the transmit identifier identifying an event upon the occurrence of which the plurality of synchronized servers each transmit a response to the client (§0091, lines 1- 5) and (iii) forward the client request and the transmit identifier to each of the plurality of synchronized servers (§0091, lines 3- 5); a slave server, which is configured to (i) receive a client request associated with a client and receive a transmit identifier identifying an event (§0092, lines 1 – 5), (ii) generate a response to the client request (§0092, lines 1 – 3), and transmit the response to the client upon an occurrence of the event identified by the transmit identifier (§0092, lines 1 – 5, event of redirecting).

Claim 24 is rejected in view of the above rejection of claim 1. Claim 24 is essentially the same as claim 1, except that it sets forth the invention as a program rather than a method, as does claim 1.

With respect to claim 23, Bohannon teaches an apparatus for responding to a client request comprising: a memory; a communications interface; a processor; and an interconnection mechanism coupling the memory, the processor and the

Art Unit: 2155

communications interface (§0058, lines 1 – 6, §0059, lines 1 – 6); wherein the memory is encoded with a request handler application that when performed on the processor, produces a means to enable the client request and transmit identifier to be forwarded to at least one slave server (§0091, lines 1 – 6), such means including: means for synchronizing a plurality of servers (§0091, lines 1 – 5); means for receiving a client request from the client to access a server of the plurality of servers (§0090, lines 1 – 4); means for generating a transmit identifier associated with the client request (§0091, line 3), the transmit identifier identifying an event upon the occurrence of which the plurality of synchronized servers each transmit a response to the client synchronize a plurality of servers (§0091, lines 1 – 5); receive a client request from the client to access a server of the plurality of servers (§0090, lines 1 – 4); generate a transmit identifier associated with the client request (§0091, line 3), the transmit identifier identifying an event upon the occurrence of which the plurality of synchronized servers each transmit a response to the client (§0092, lines 1 – 5); and forward the client request and the transmit identifier to each of the plurality of synchronized servers (§0091, lines 1 – 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohannon in view of U.S. Patent 6453356 B1 by Sheard et al. (hereinafter Sheard).

With respect to claim 6, Bohannon teaches the method of claim 3, but fails to explicitly teach the additional limitations of claim 6 wherein the client request is received in a request queue, and wherein the step of obtaining the timestamp is performed at a time of processing the client request from the request queue. Sheard teaches the additional limitations of claim 6 wherein the client request is received in a request queue and wherein the step of obtaining the timestamp is performed at a time of processing the client request from the request queue. (Sheard, col. 45, lines 26 – 29, processing of messages (i.e. requests) in queues, and applying a timestamp when a request is dequeued (processed)). Bohannon and Sheard are analogous art because they are both related to computer-to-computer data transfer. Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to

Art Unit: 2155

combine the time stamping techniques taught by Bohannon with time stamping and queuing techniques taught by Sheard in order to determine the order of the records (requests) in the queue and to be able to sort them by priority. (See Sheard, col. 66, lines 25 – 27). One having ordinary skills in the art would also be motivated to combine the teaching of Bohannon and Sheard in order to enhance the workflow and the data exchange between the computers (Sheard, col. 8, lines 13 – 17).

Claim 17 is rejected in view of the above rejection of claim 6. Claim 17 is essentially the same as claim 6, except that it sets forth the invention as an apparatus rather than a method, as does claim 6.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vitali Korobov whose telephone number is 571-272-7506. The examiner can normally be reached on Mon-Friday 8a.m. - 4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2155

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vitali Korobov
Examiner
Art Unit 2155

03/09/2005


HOSAIN ALAM
SUPERVISORY PATENT EXAMINER